# DVP-C600D

## RMT-D104A

# SERVICE MANUAL

*US Model*
*Canadian Model*
*Mexican Model*

Self Diagnostics Supported model

## SPECIFICATIONS

### CD/DVD player

| | |
|---|---|
| **Laser** | Semiconductor laser |
| **Signal format system** | NTSC |

### Audio characteristics

| | |
|---|---|
| **Frequency response** | DVD (PCM 96 kHz): 2 Hz to 44 kHz (±0.5 dB)*<br>DVD (PCM 48 kHz): 2 Hz to 22 kHz (±0.5 dB)<br>CD: 2 Hz to 20 kHz (±0.5 dB) |
| **Signal-to-noise ratio** | More than 115 dB (LINE OUT (AUDIO 1, 2) connectors only) |
| **Harmonic distortion** | Less than 0.0028% |
| **Dynamic range** | More than 100 dB (DVD)<br>More than 97 dB (CD) |
| **Wow and flutter** | Less than detected value (±0.001% W PEAK) |

### Outputs and inputs

| | Jack type | Output/Input level | Load impedance |
|---|---|---|---|
| **LINE OUT (AUDIO 1, 2)** | Phono jacks | 2 Vrms (at 50 kilohms) | Over 10 kilohms |
| **DIGITAL OUT (OPTICAL)** | Optical output connector | −18 dBm | Wave length: 660 nm |
| **DIGITAL OUT (COAXIAL)** | Phono jack | 0.5 Vp-p | 75 ohms terminated |
| **LINE OUT (VIDEO 1, 2)** | Phono jacks | 1.0 Vp-p | 75 ohms, sync negative |
| **S VIDEO OUT (1, 2)** | 4-pin mini DIN | Y: 1.0 Vp-p<br>C: 0.286 Vp-p | 75 ohms, sync negative<br>75 ohms terminated |
| **COMPONENT VIDEO OUT (Y, CB/B-Y, CR/R-Y)** | Phono jacks | Y: 1.0 Vp-p<br>CB/B-Y, CR/R-Y: 0.7 Vp-p | 75 ohms, sync negative<br>75 ohms |
| **PHONES** | Phone jack | 12 mW | 32 ohms |
| **S-LINK** | Mini jack | | |
| **5.1CH OUTPUT** | Phono jacks | 1.6 Vrms (at 50 kilohms) | Over 10 kilohms |
| **MEGA CONTROL** | Mini jack | | |
| **AUDIO IN** | Phono jack | 2 Vrms | 47 kilohms |

### General

| | |
|---|---|
| **Power requirements** | 120 V AC, 60 Hz |
| **Power consumption** | 22 W |
| **Dimensions (approx.)** | 430 × 120 × 425 mm (17 × 4 3/4 × 16 3/4 in.) (w/h/d) incl. projecting parts |
| **Mass (approx.)** | 6.1 kg (13 lb 7 oz) |
| **Operating temperature** | 41 °F to 95 °F (5 °C to 35 °C) |
| **Operating humidity** | 5% to 90% |

### Supplied accessories

- Audio/video/S-link connecting cord (1)
- S video cable (1)
- Remote commander (remote) RMT-D104A (1)
- Size AA (R6) batteries (2)

* The signals from LINE OUT (AUDIO 1, 2 ) connectors are measured. When you play the PCM sound tracks with 96 kHz sampling frequency, the output signals from the DIGITAL OUT (OPTICAL, COAXIAL) and 5.1CH OUTPUT connectors are converted to 48 kHz (sampling frequency)/16 bits (quantization bits).

Design and specifications are subject to change without notice.

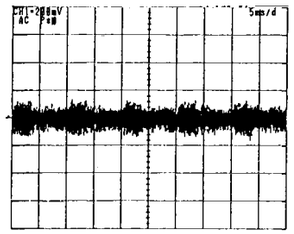
DVD VIDEO COMPACT DISC DIGITAL VIDEO **CD/DVD PLAYER**

MICROFILM

SONY®

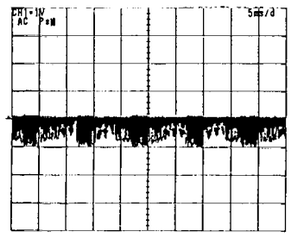
• **Waveforms**

❶ IC006 ㊶ – ㊷ (DVD play)



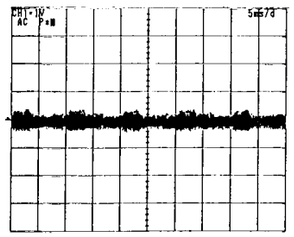
270 mVp-p (V)

❷ IC006 ㊶ – ㊷ (DVD play)



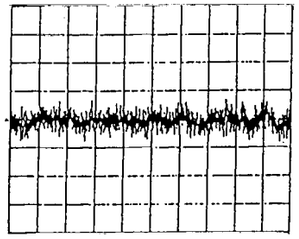
1.2 Vp-p (V)

❸ IC006 ㊸ – ㊹ (DVD play)



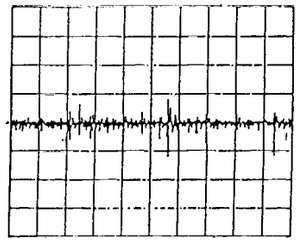
800 mVp-p (V)

❹ IC005 ⑬ (CD play)



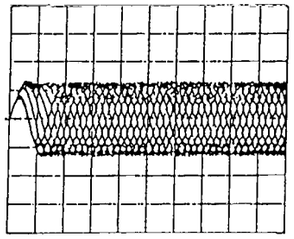
500 mV/DIV 1 ms/DIV

❺ IC005 ⑮ (CD play)



500 mV/DIV 10 ms/DIV

❻ IC005 ㉒ (CD play)

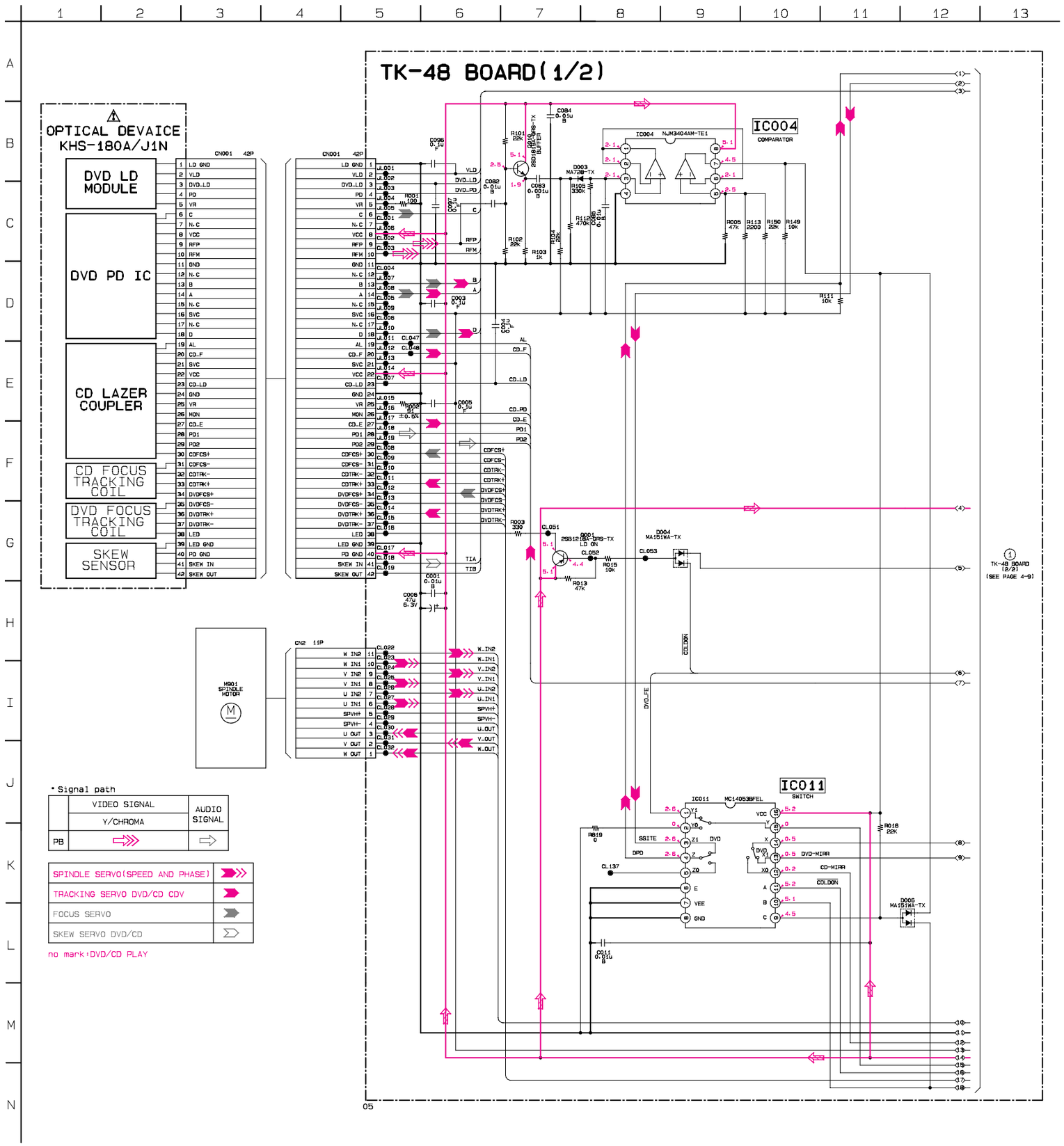


500 mV/DIV 1 µs/DIV

| **Note:** | **Note:** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.<br>Ne les remplacer que par une piéce portant le numéro spécifié. |

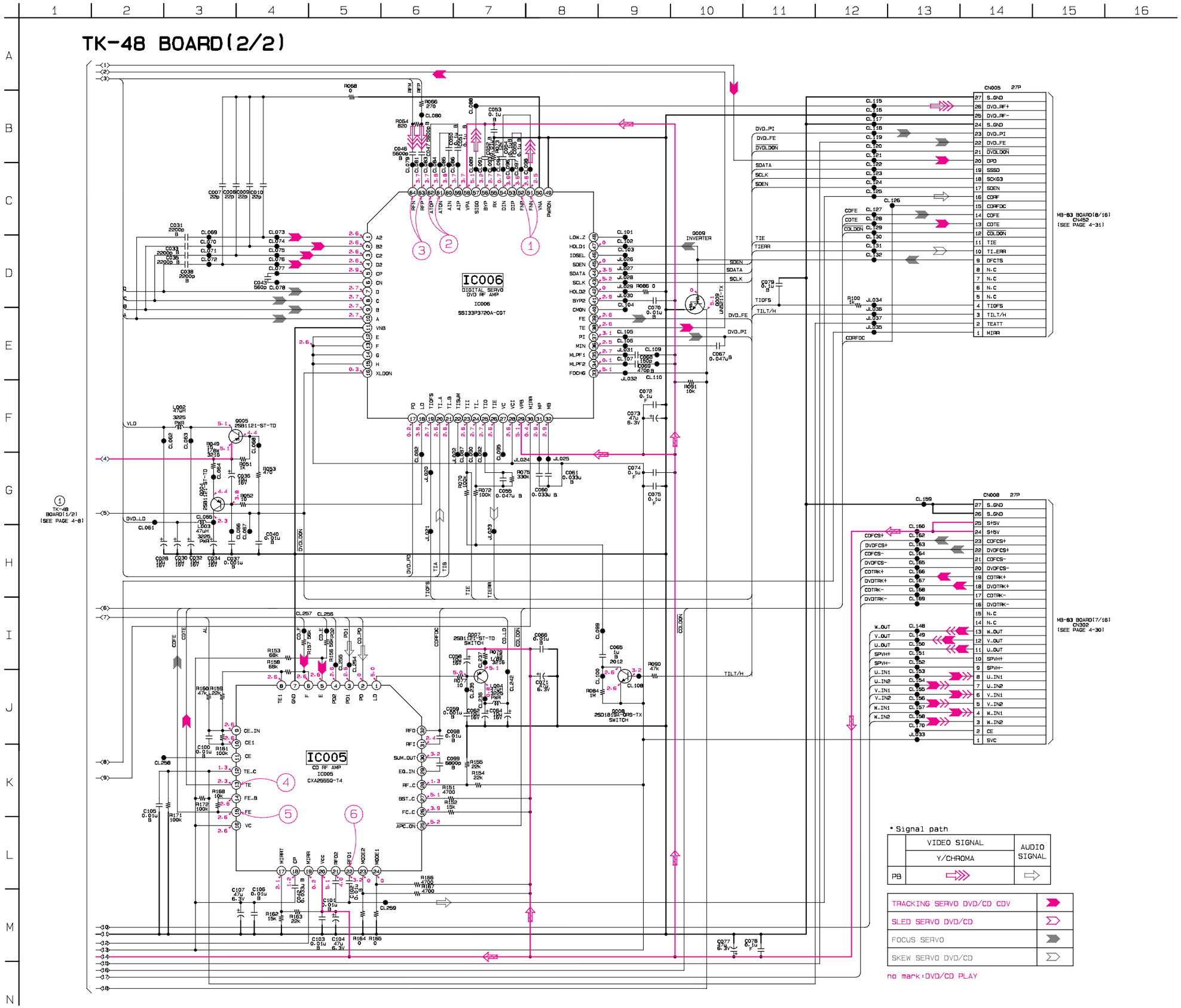
## TK-48 (RF, SERVO 1) SCHEMATIC DIAGRAM

– Ref. No.: TK-48 board; 3,000 series –



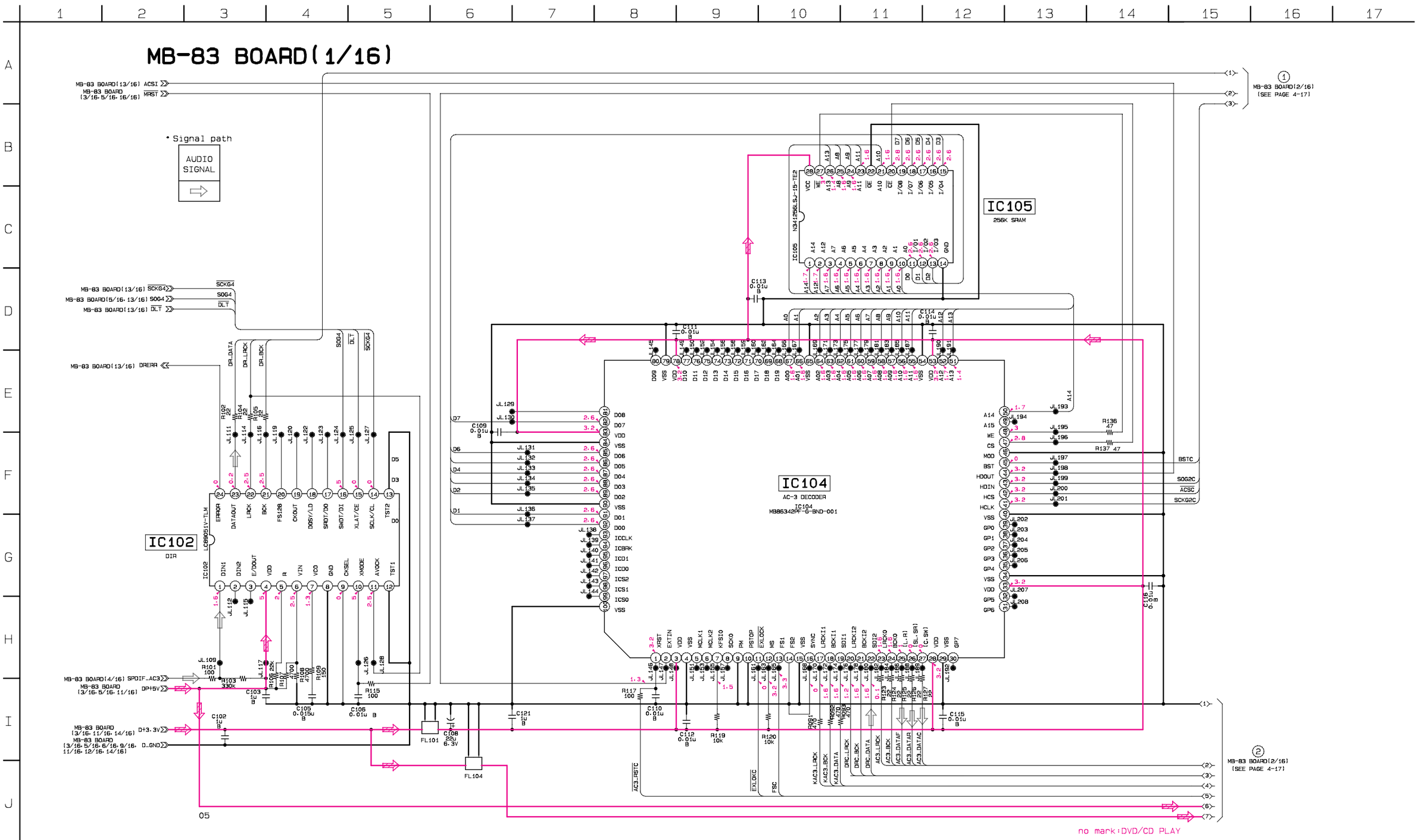
## TK-48 (RF, SERVO 2) SCHEMATIC DIAGRAM

– Ref. No.: TK-48 board; 3,000 series –



**MB-83 (AC-3 DECODER) SCHEMATIC DIAGRAM • See page 4-11 to 4-14 for printed wiring board.**

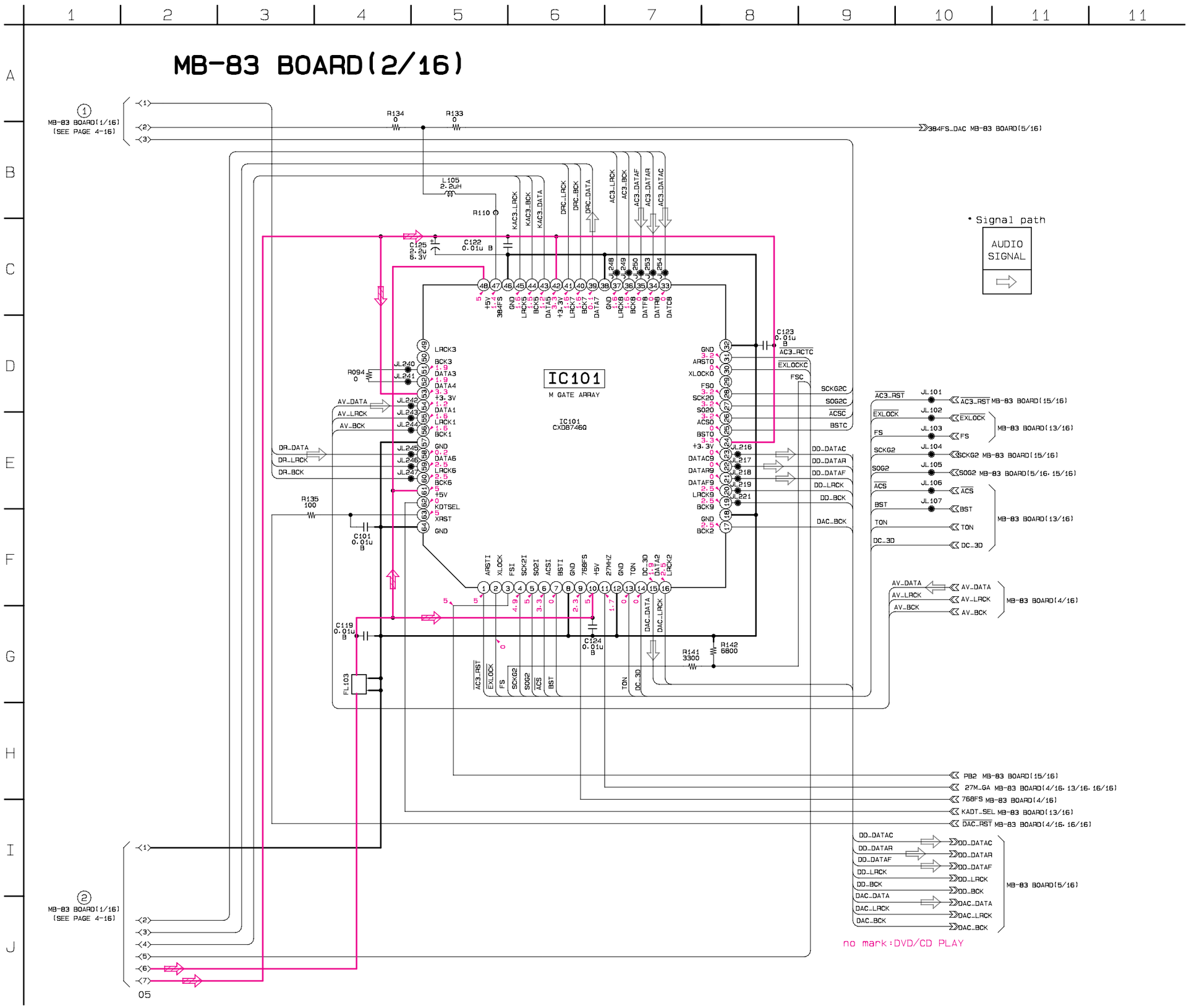
– Ref. No.: MB-83 board; 2,000 series –




## AC-3 DECODER
## MB-83 (1/16)

**MB-83 (M GATE ARRAY) SCHEMATIC DIAGRAM** **• See page 4-11 to 4-14 for printed wiring board.**

– Ref. No.: MB-83 board; 2,000 series –



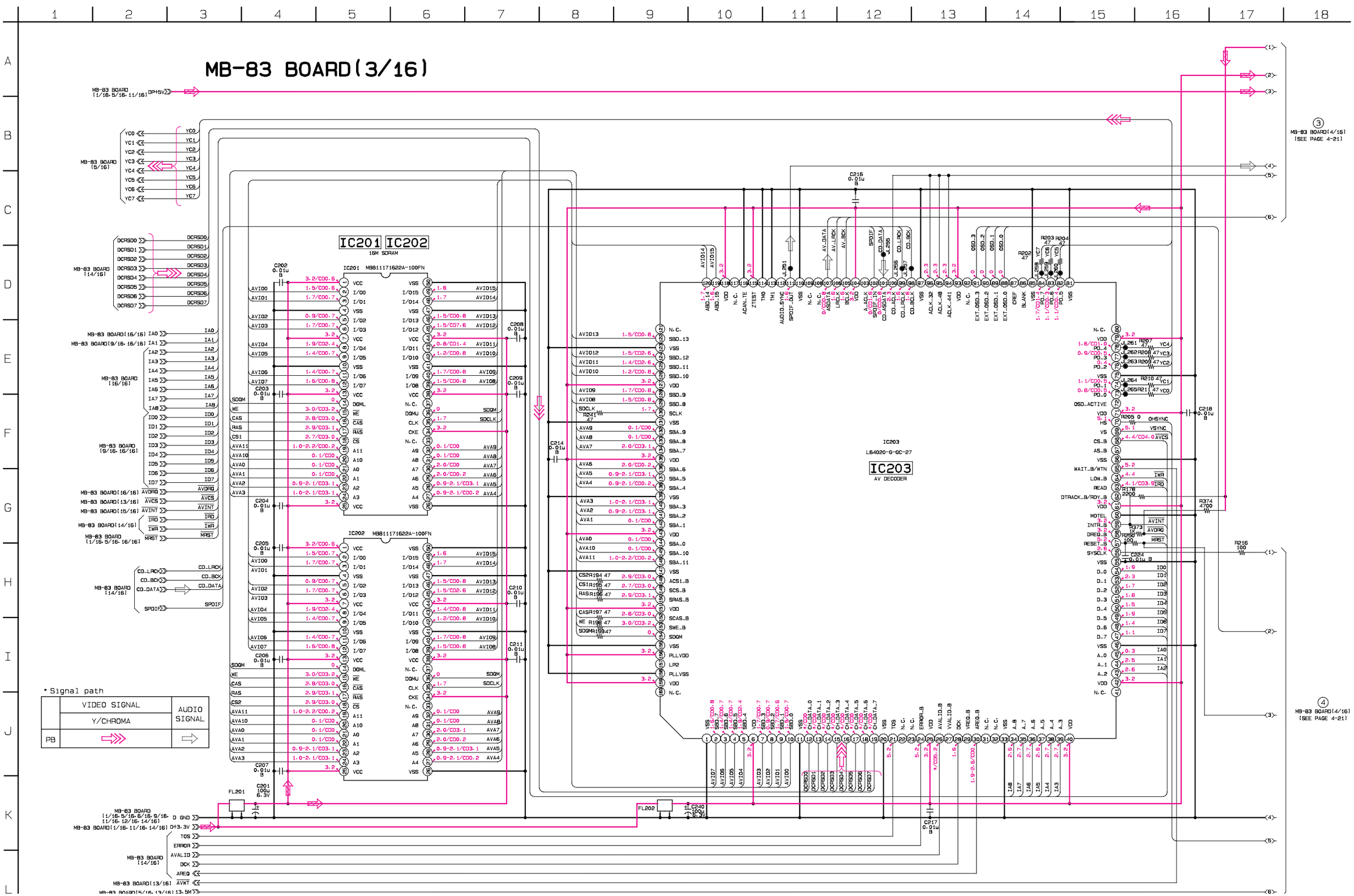





**M GATE ARRAY**
**MB-83 (2/16)**

**MB-83 (AV DECODER) SCHEMATIC DIAGRAM** • See page 4-11 to 4-14 for printed wiring board.

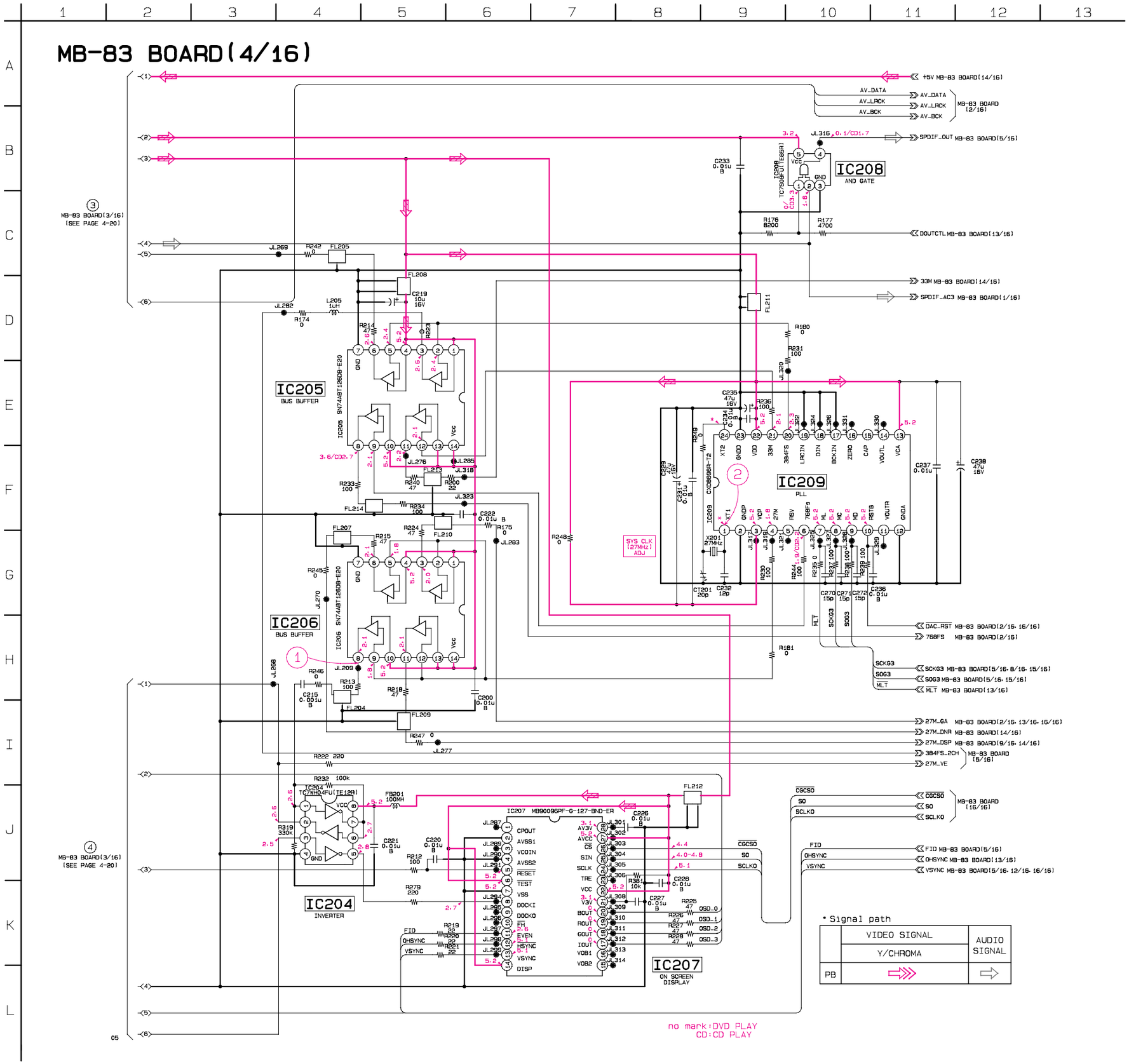
– Ref. No.: MB-83 board; 2,000 series –




**AV DECODER**
**MB-83 (3/16)**

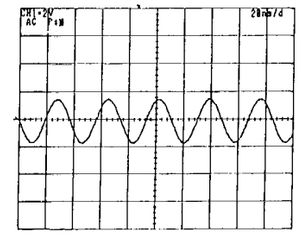
**MB-83 (CLOCK GENERATOR) SCHEMATIC DIAGRAM** **• See page 4-11 to 4-14 for printed wiring board.**

– Ref. No.: MB-83 board; 2,000 series –



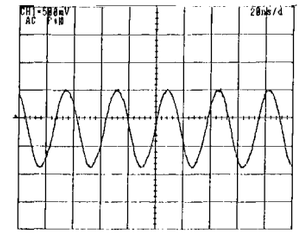

**• Waveforms**

❶ IC206 ⑧



3.28 Vp-p 27 MHz

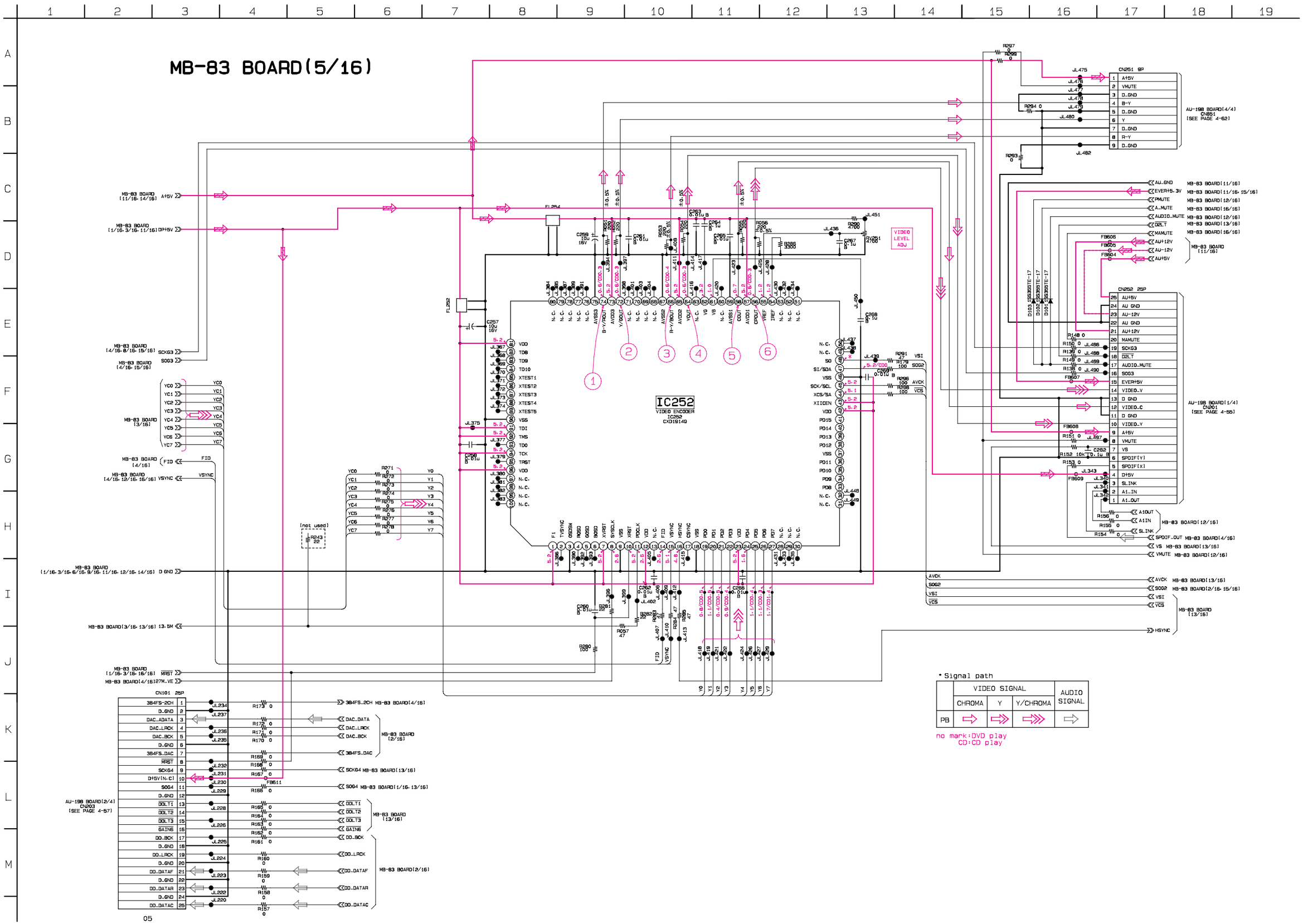
❷ IC209 ①



1.4 Vp-p 27 MHz

## MB-83 (VIDEO ENCODER) SCHEMATIC DIAGRAM • See page 4-11 to 4-14 for printed wiring board.

– Ref. No.: MB-83 board; 2,000 series –

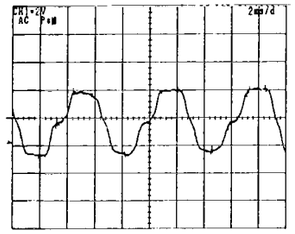


## MB-83 (DRIVE 1) SCHEMATIC DIAGRAM • See page 4-11 to 4-14 for printed wiring board.

– Ref. No.: MB-83 board; 2,000 series –

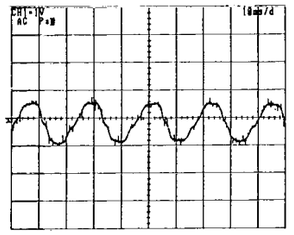
• **Waveforms**

❶ IC303 ⑲, ㉒, ㉓ (DVD play)



5.2 Vp-p 160 Hz

❷ IC303 ⑲, ㉒, ㉓ (CD play)



1.84 Vp-p 45 Hz

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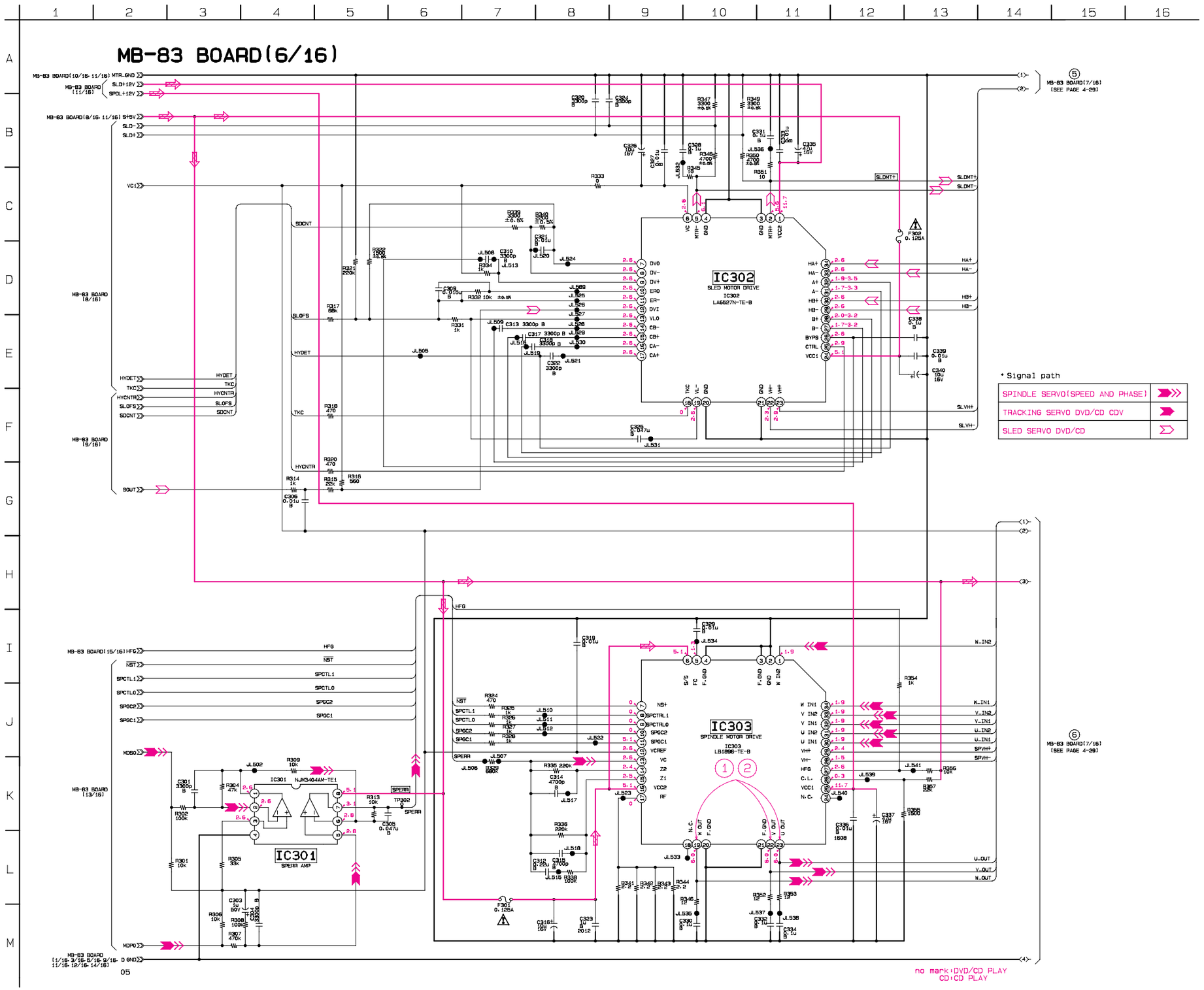
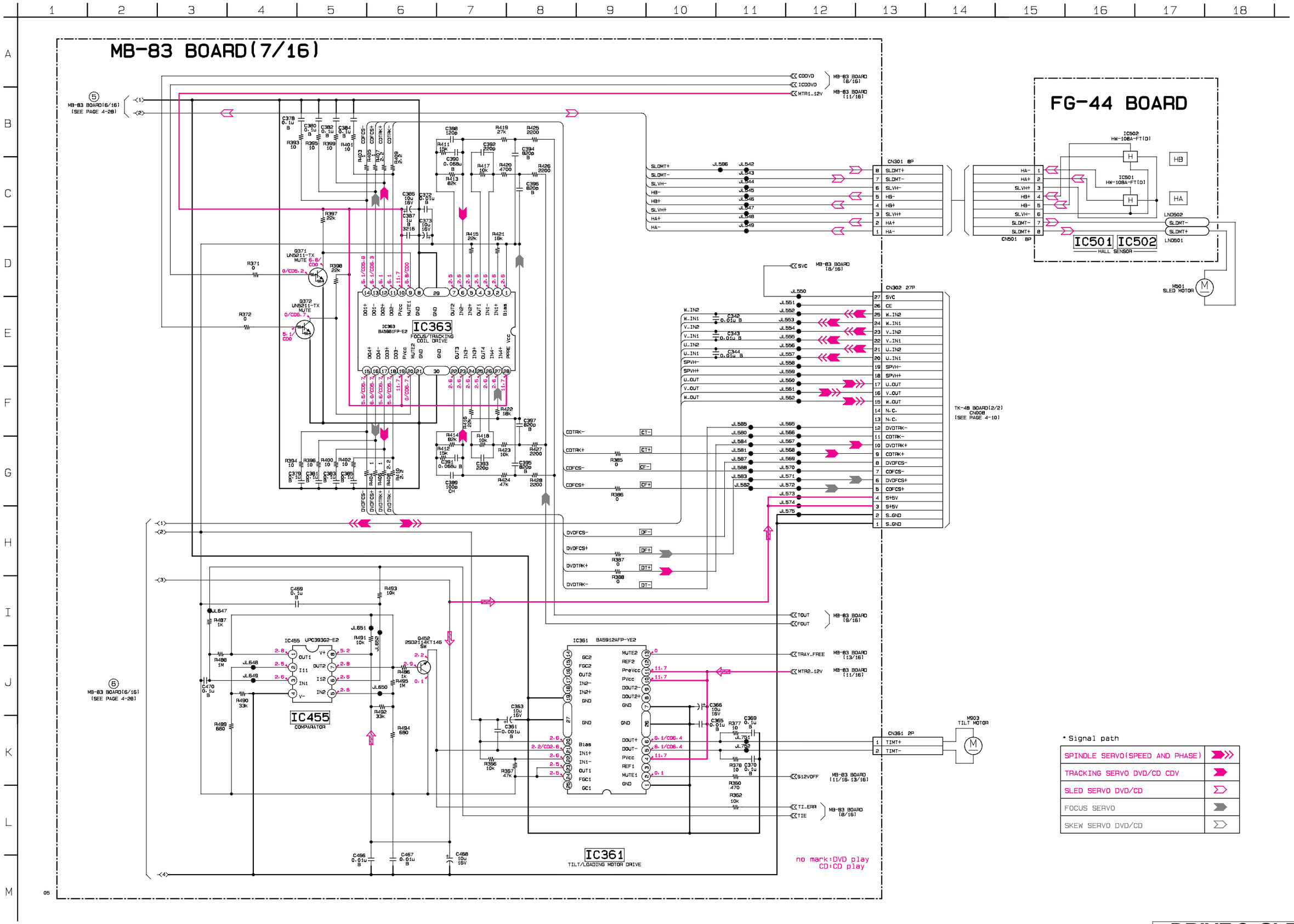


**MB-83 (DRIVE 2), FG-44 (SLED) SCHEMATIC DIAGRAMS** • See page 4-11 to 4-14 and 4-26 for printed wiring boards.

– Ref. No.: MB-83 board; 2,000 series, FG-44 board; 1,000 series –

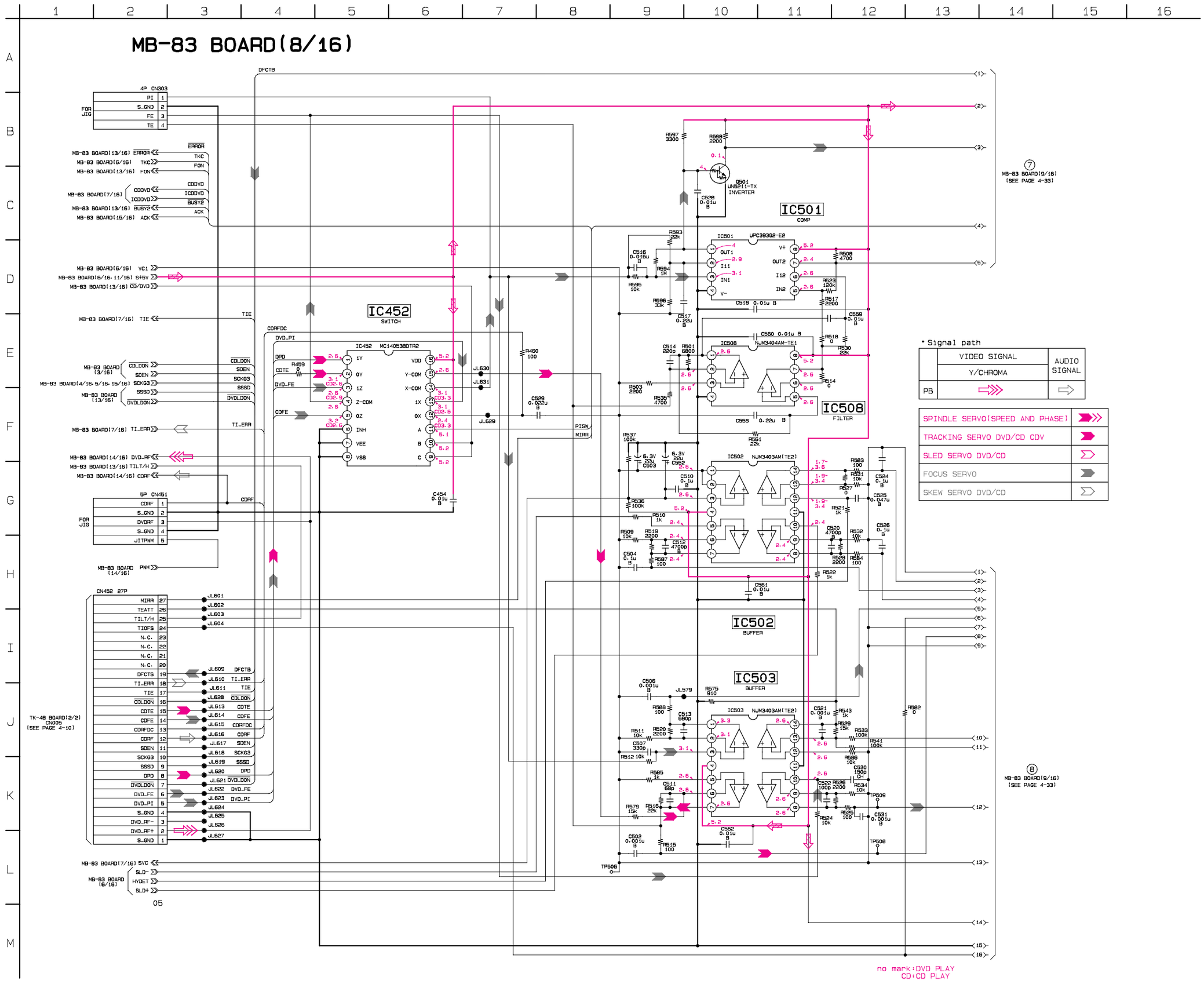



• Signal path

| | |
|---|---|
| SPINDLE SERVO(SPEED AND PHASE) | |
| TRACKING SERVO DVD/CD CDV | |
| SLED SERVO DVD/CD | |
| FOCUS SERVO | |
| SKEW SERVO DVD/CD | |

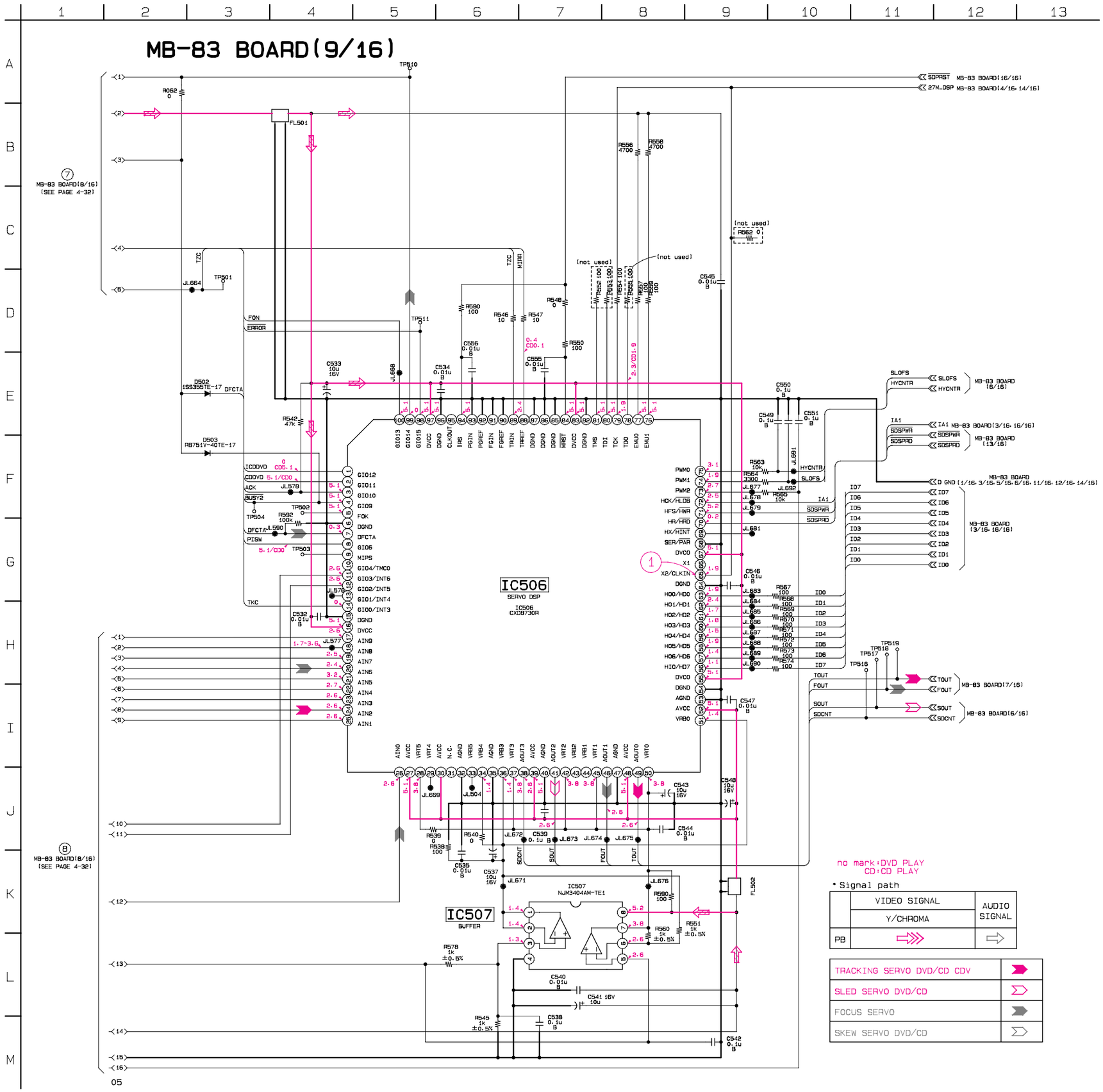
## MB-83 (DSP 1) SCHEMATIC DIAGRAM • See page 4-11 to 4-14 for printed wiring board.

– Ref. No.: MB-83 board; 2,000 series –



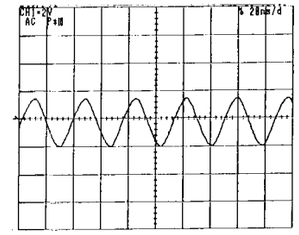
**MB-83 (DSP 2) SCHEMATIC DIAGRAM** **• See page 4-11 to 4-14 for printed wiring board.**

– Ref. No.: MB-83 board; 2,000 series –




**• Waveform**

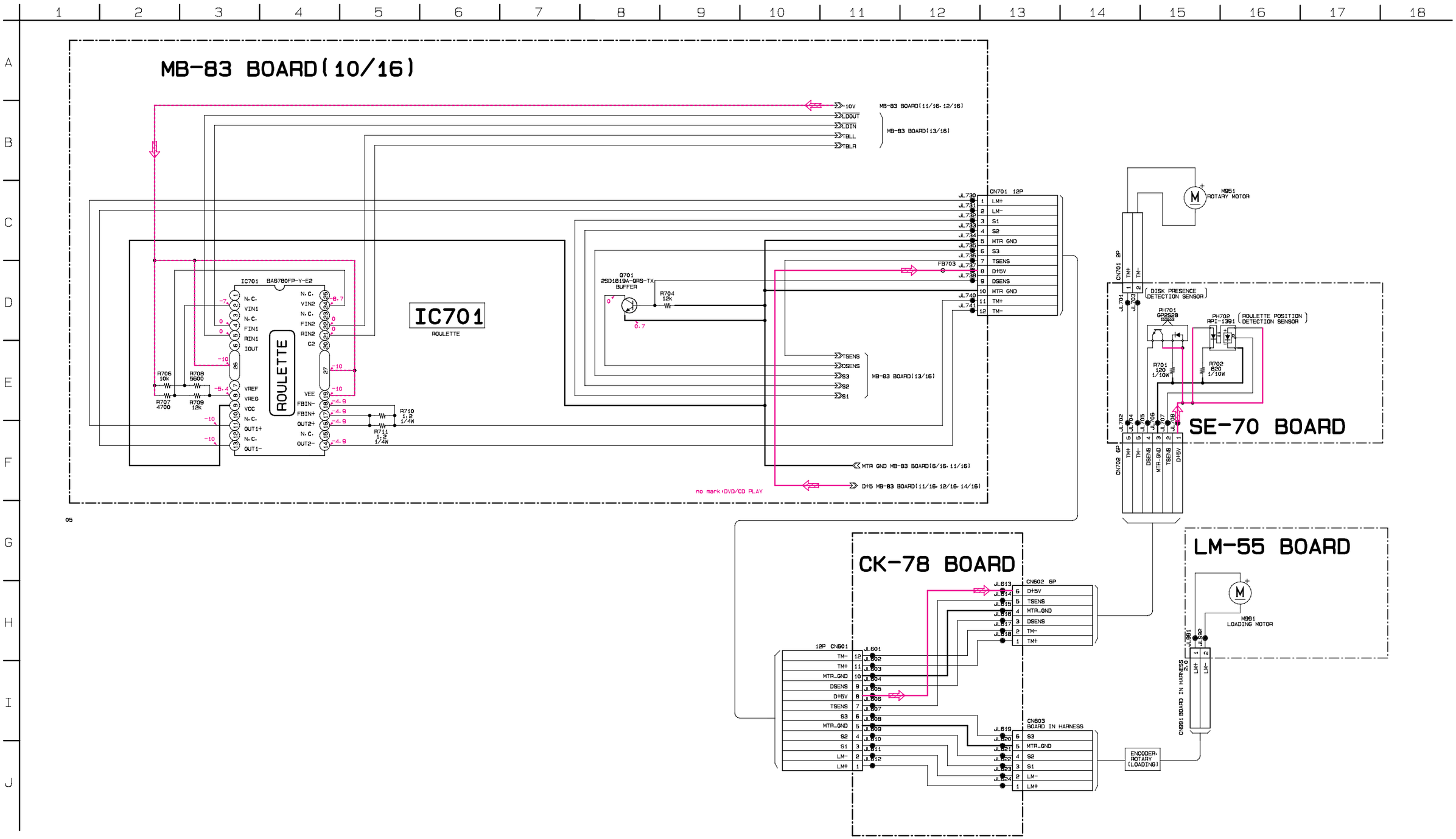
❶ IC506 (65)



3.6 Vp-p 27 MHz

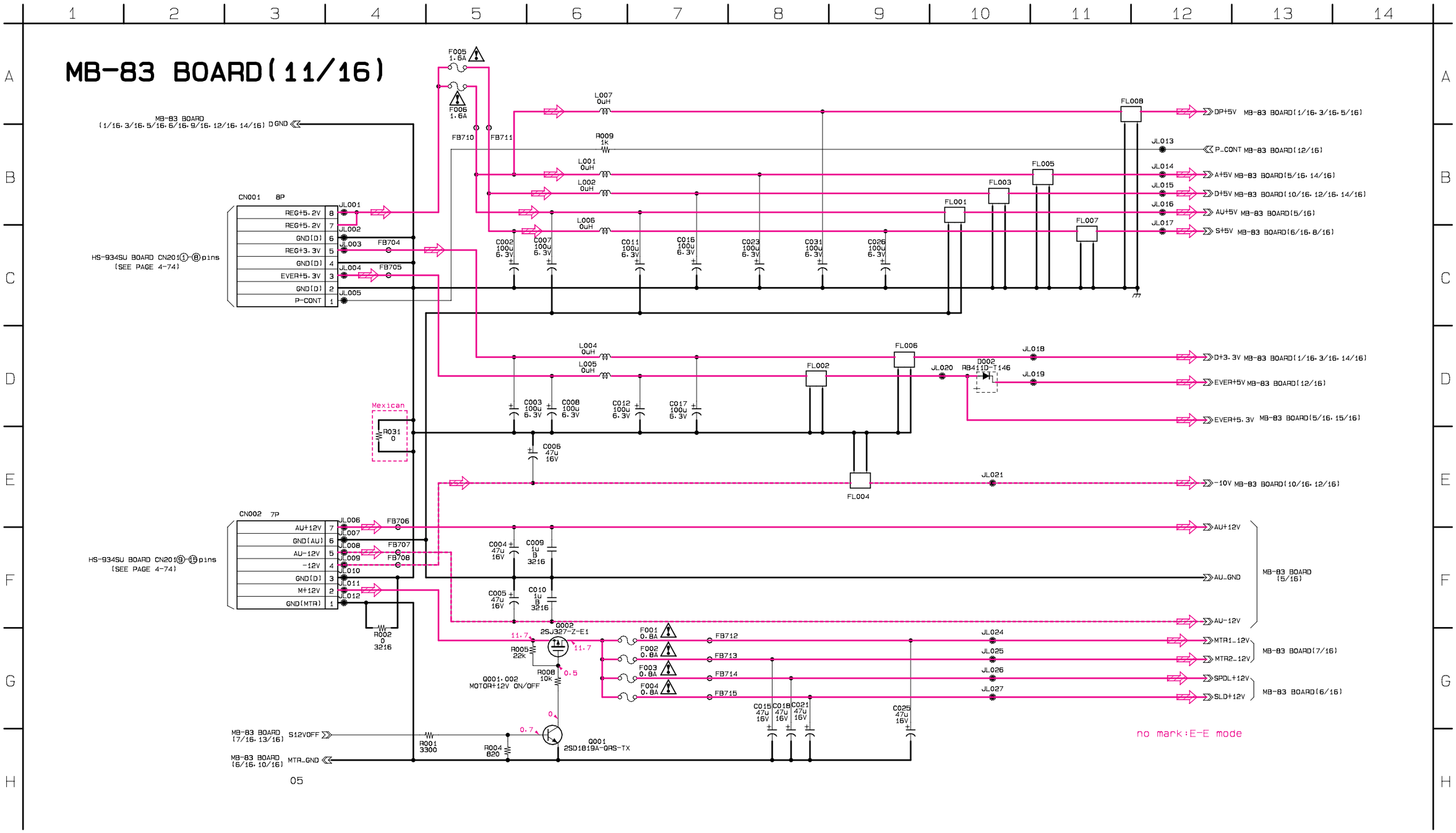
**MB-83 (ROULETTE), CK-78 (CONNECTION), LM-55 (LOADING MOTOR), SE-70 (SENSOR) SCHEMATIC DIAGRAM** • See page 4-11 to 4-14 for printed wiring board.

– Ref. No.: MB-83 board; 2,000 series, CK-78, LM-55, SE-70 boards; 1,000 series –



**MB-83 (BIAS) SCHEMATIC DIAGRAM** • **See page 4-11 to 4-14 for printed wiring board.**

– Ref. No.: MB-83 boards; 2,000 series –

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**BIAS**
**MB-78 (11/16)**

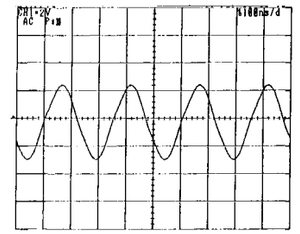
**MB-83 (IF µ-COM) SCHEMATIC DIAGRAM** **• See page 4-11 to 4-14 for printed wiring board.**

– Ref. No.: MB-83 board; 2,000 series –

# MB-83 BOARD(12/16)

**• Waveform**

❶ IC604 (82)



5.6 Vp-p 4 MHz

IC601 LATCH

IC608 SRAM

IC605 RESET

IC603 ROM

IC602 NAND GATE

IC604 IF µ-COM

IC606 S-LINK COMP.

IR BUFFER

FL-89 BOARD CN101 (SEE PAGE 4-66)

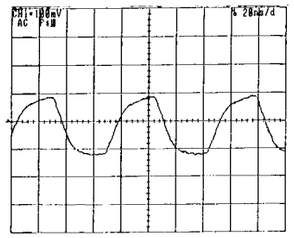
no mark:DVD/CD PLAY

## MB-83 (L GATE ARRAY) SCHEMATIC DIAGRAM • See page 4-11 to 4-14 for printed wiring board.

– Ref. No.: MB-83 board; 2,000 series –

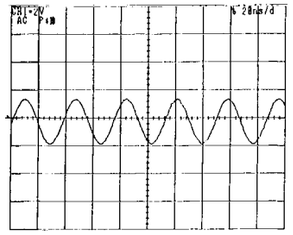
• **Waveforms**

❶ IC804 ⑱



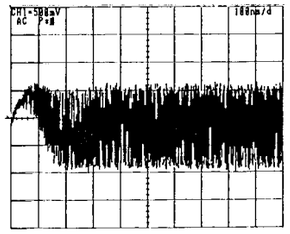
225 mVp-p 13.5 MHz

❷ IC804 ⑲



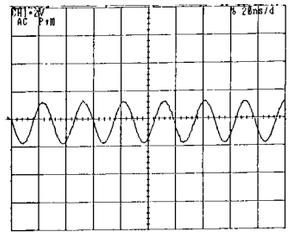
3.3 Vp-p 27 MHz

❸ IC806 ⑩



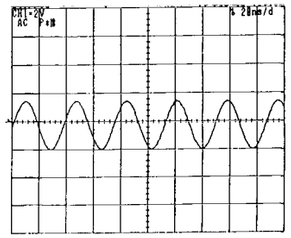
1.5 Vp-p

❹ IC806 ⑫④



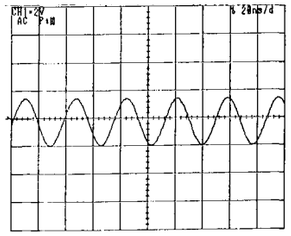
3.0 Vp-p 33 MHz

❺ IC806 ⑫②

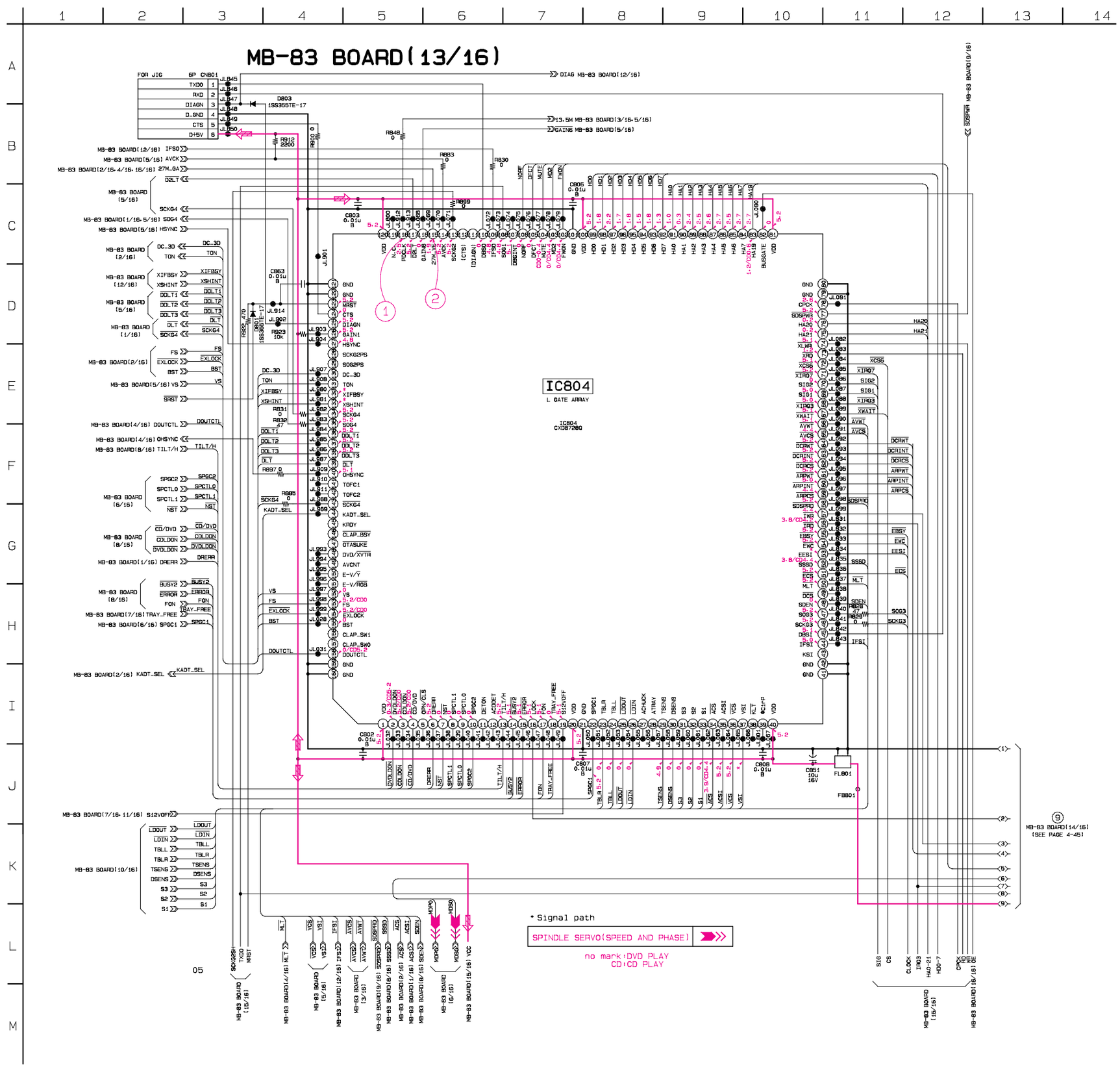


3.4 Vp-p 27 MHz

❻ IC811 ⑤①

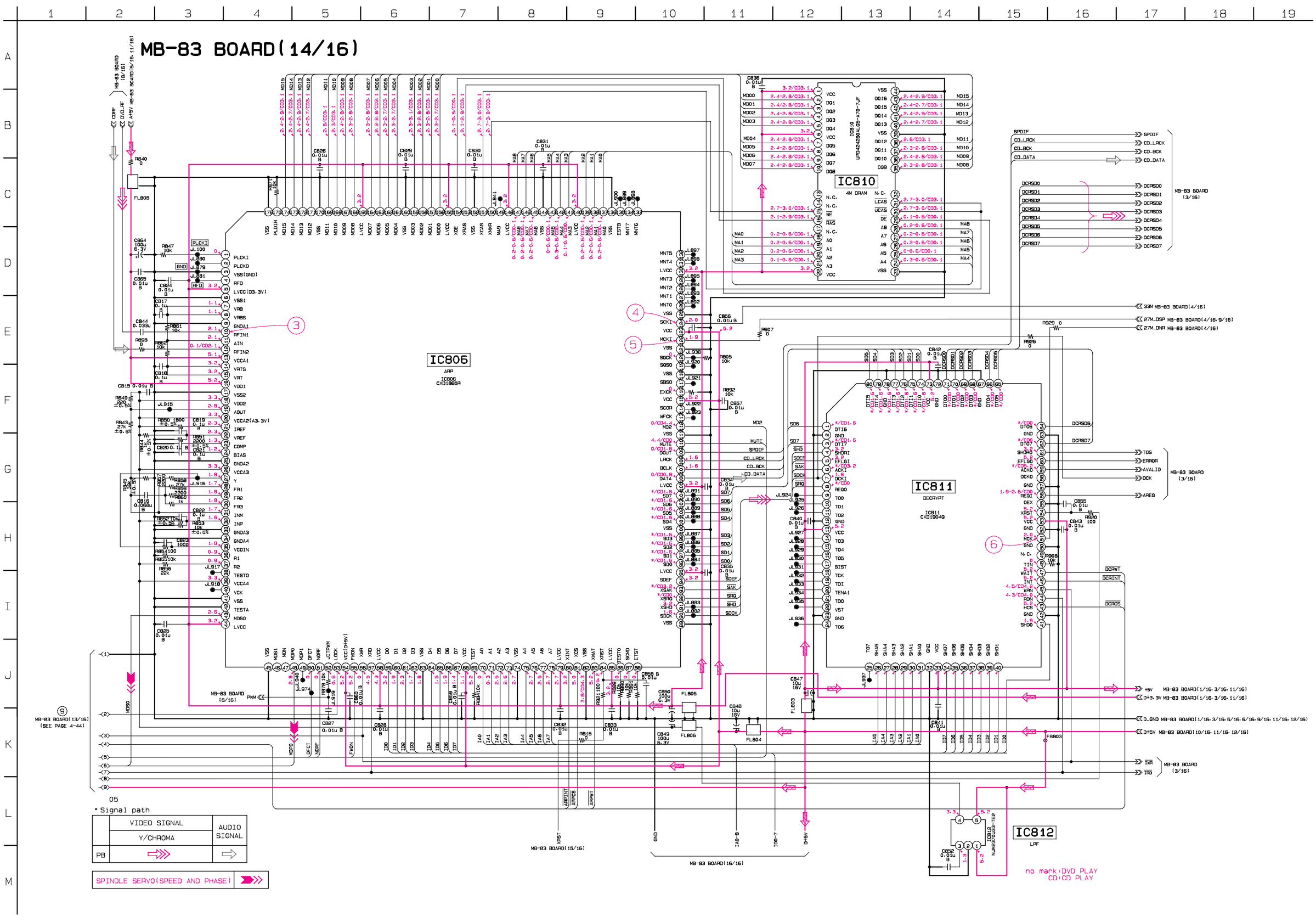


3.4 Vp-p 27 MHz



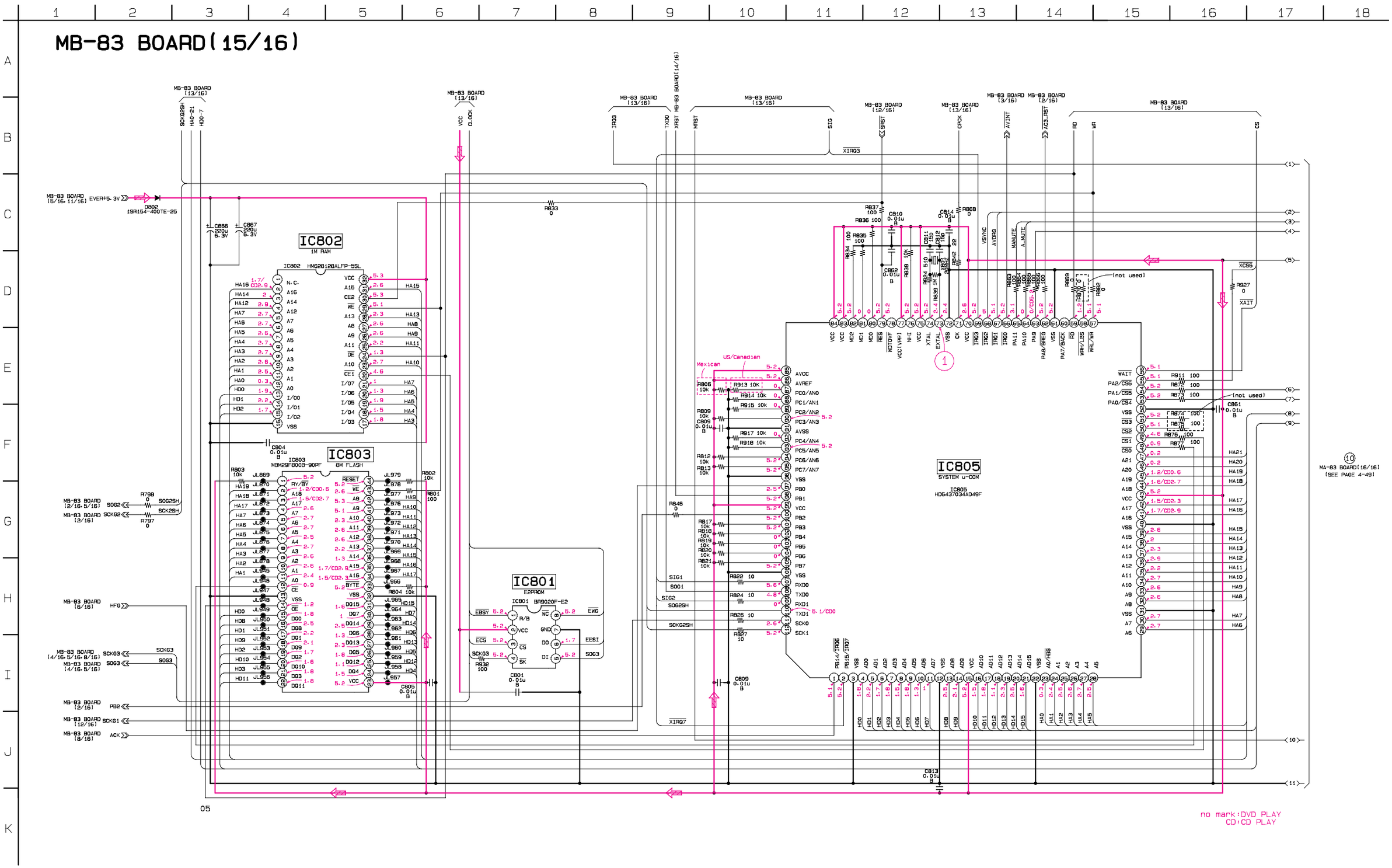
**MB-83 (ARP, DECRYPT) SCHEMATIC DIAGRAM • See page 4-11 to 4-14 for printed wiring board.**

– Ref. No.: MB-83 board; 2,000 series –



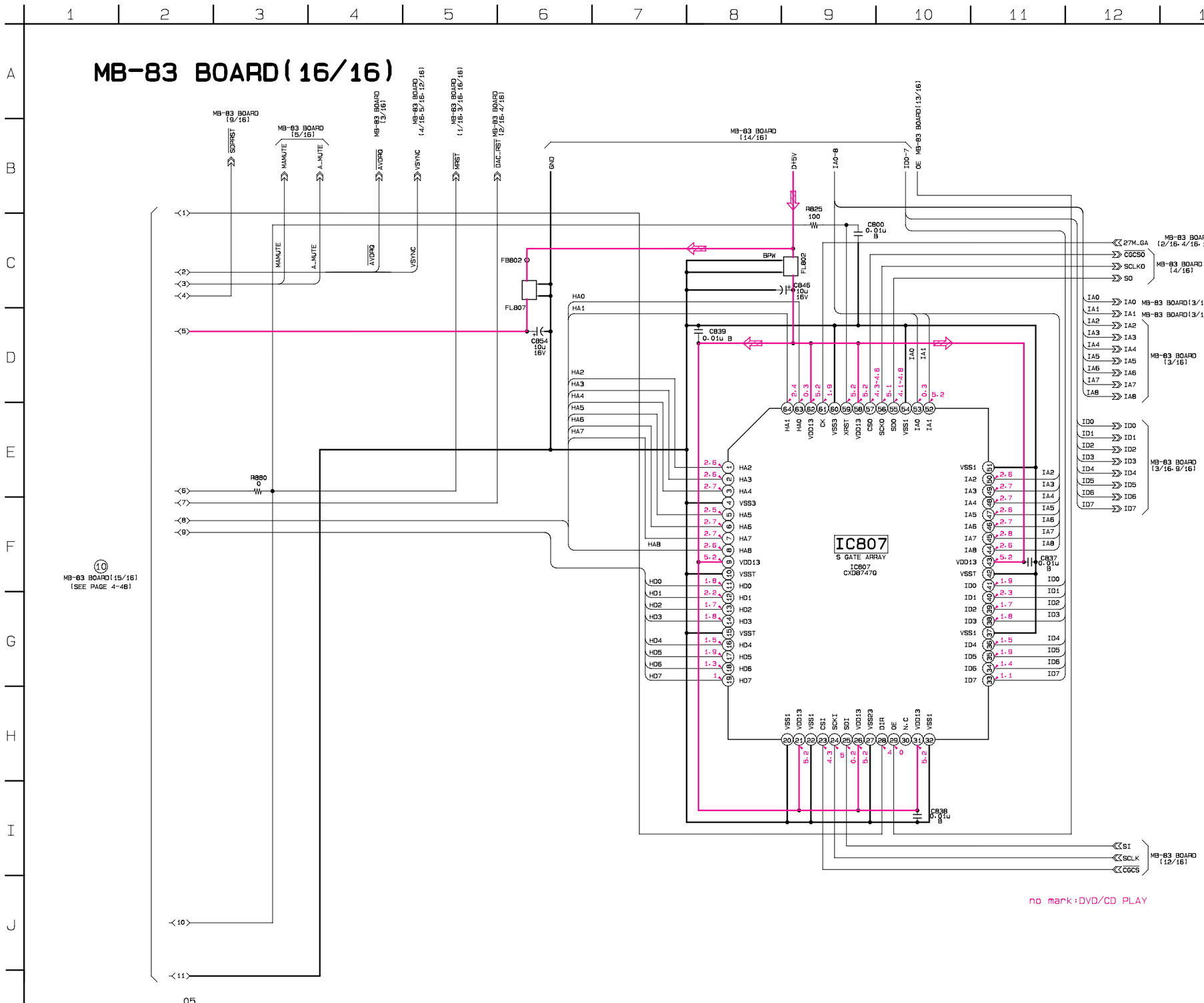
**MB-83 (SYSTEM µ-COM) SCHEMATIC DIAGRAM** • See page 4-11 to 4-14 for printed wiring board.

– Ref. No.: MB-83 board; 2,000 series –



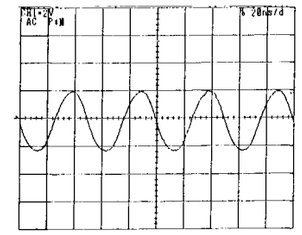
**MB-83 (S GATE ARRAY) SCHEMATIC DIAGRAM • See page 4-11 to 4-14 for printed wiring board.**

– Ref. No.: MB-83 board; 2,000 series –




• **Waveform**

❶ IC805 ㉝



4.4 Vp-p 20 MHz



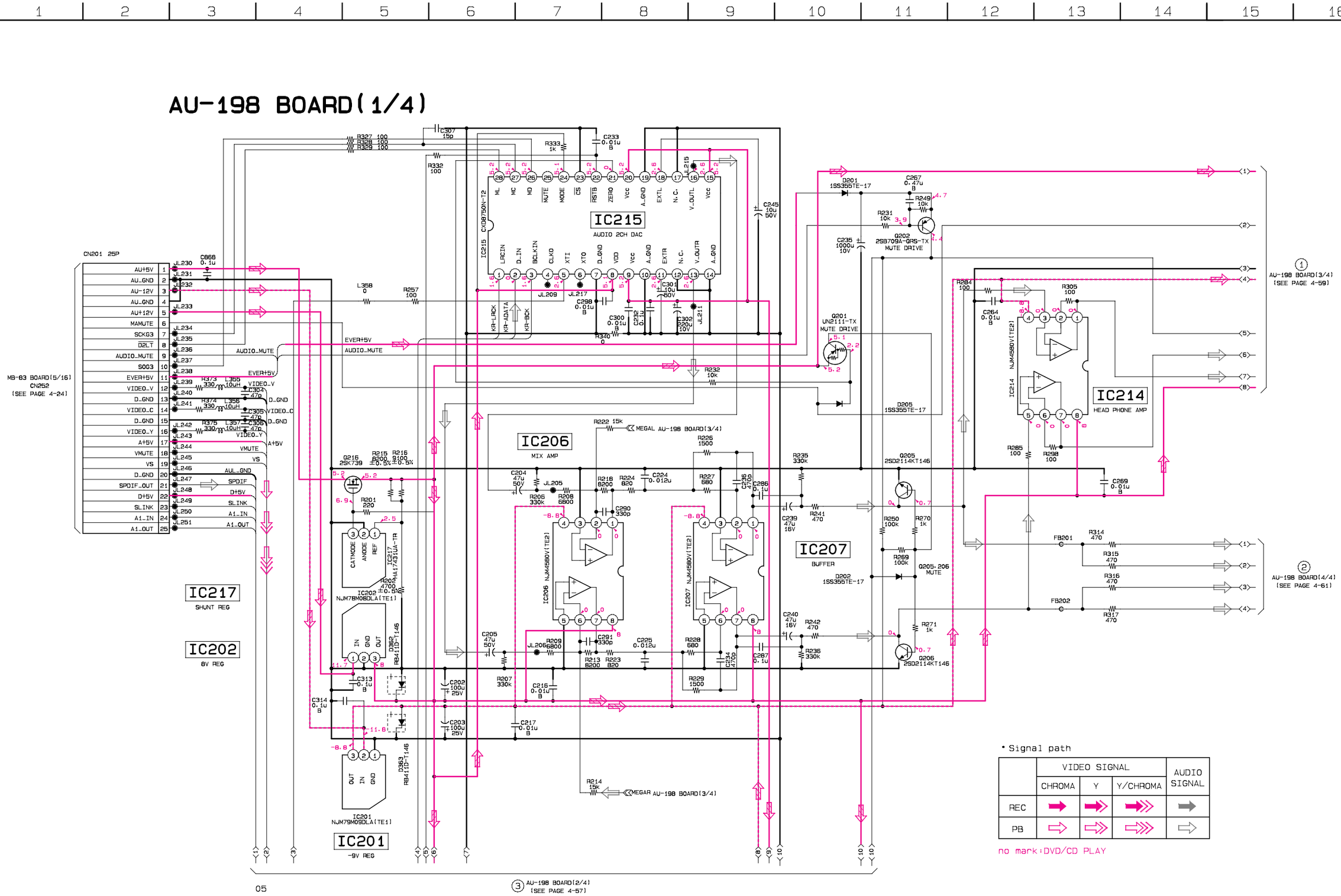


**S GATE ARRAY**
**MB-83 (16/16)**

**AU-198 (AUDIO 1) SCHEMATIC DIAGRAM** • See page 4-51 to 4-54 for printed wiring board.

– Ref. No.: AU-198 board; 1,000 series –

# AU-198 BOARD(1/4)



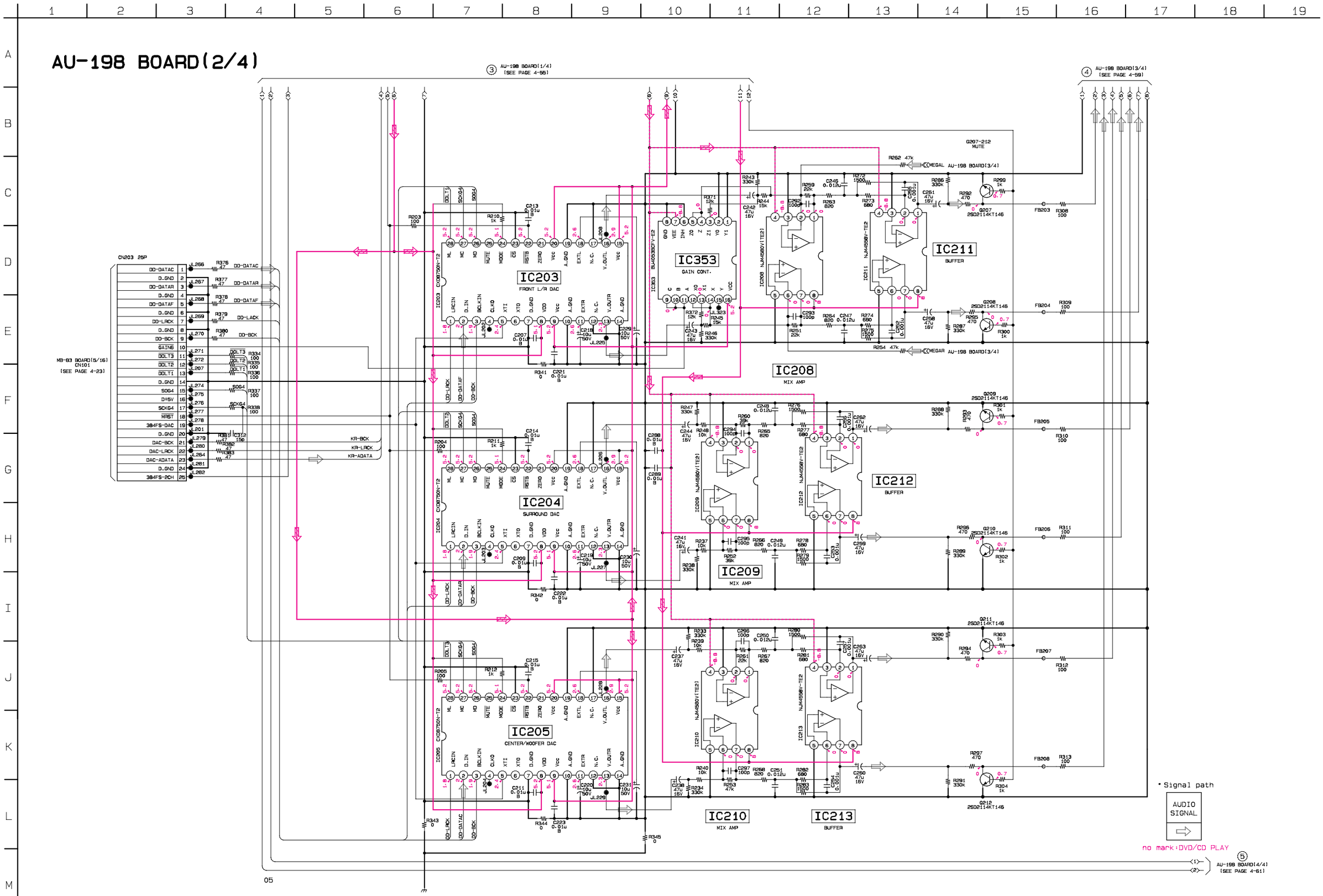

• Signal path

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| REC | → | ⇒ | ⇛ | → |
| PB | ⇨ | ⇨ | ⇨ | ⇨ |

no mark:DVD/CD PLAY

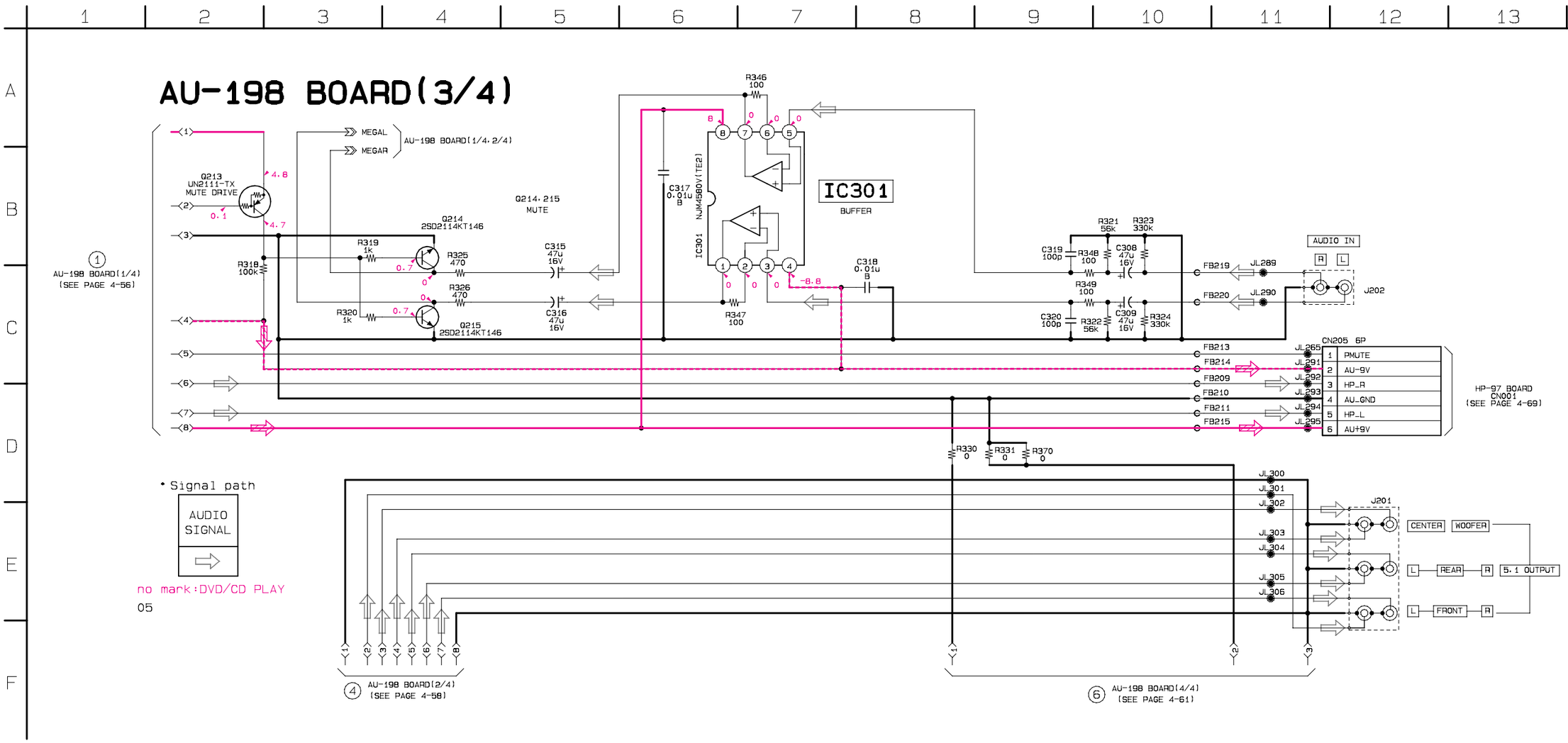
**AU-198 (AUDIO 2) SCHEMATIC DIAGRAM • See page 4-51 to 4-54 for printed wiring board.**

– Ref. No.: AU-198 board; 1,000 series –



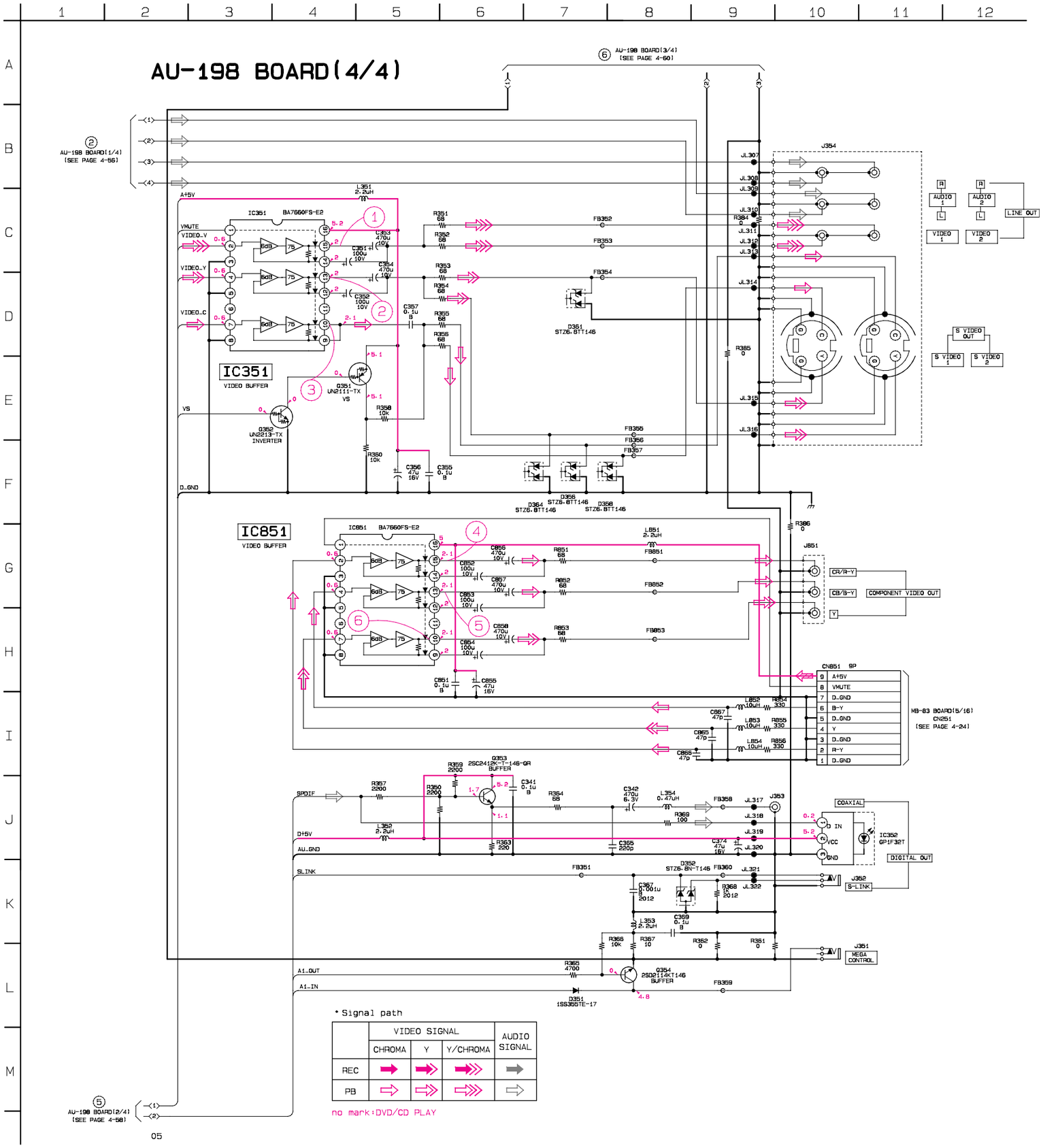
**AU-198 (AUDIO 3) SCHEMATIC DIAGRAM • See page 4-51 to 4-54 for printed wiring board.**

– Ref. No.: AU-198 board; 1,000 series –



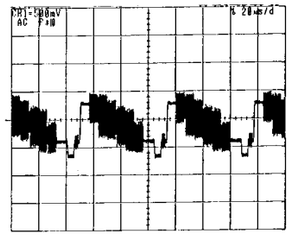
## AU-198 (VIDEO BUFFER) SCHEMATIC DIAGRAM • See page 4-51 to 4-54 for printed wiring board.

– Ref. No.: AU-198 board; 1,000 series –



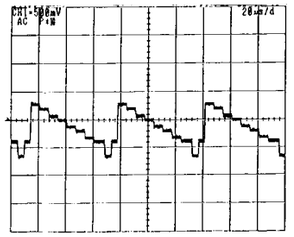

### • Waveforms

❶ IC351 ⑮



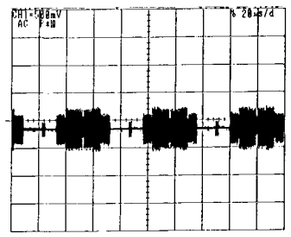
1.1 Vp-p (H)

❷ IC351 ⑬



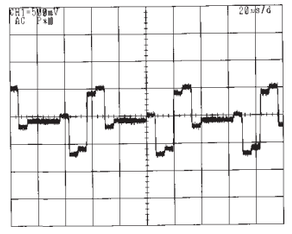
1.0 Vp-p (H)

❸ IC351 ⑩



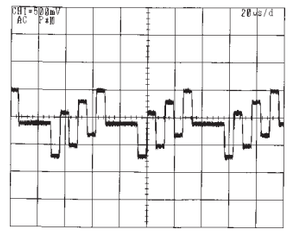
0.7 Vp-p (H)

❹ IC851 ⑮



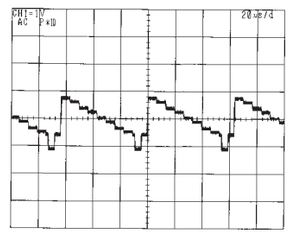
0.7 Vp-p (H)

❺ IC851 ⑬



0.7 Vp-p (H)

❻ IC851 ⑩



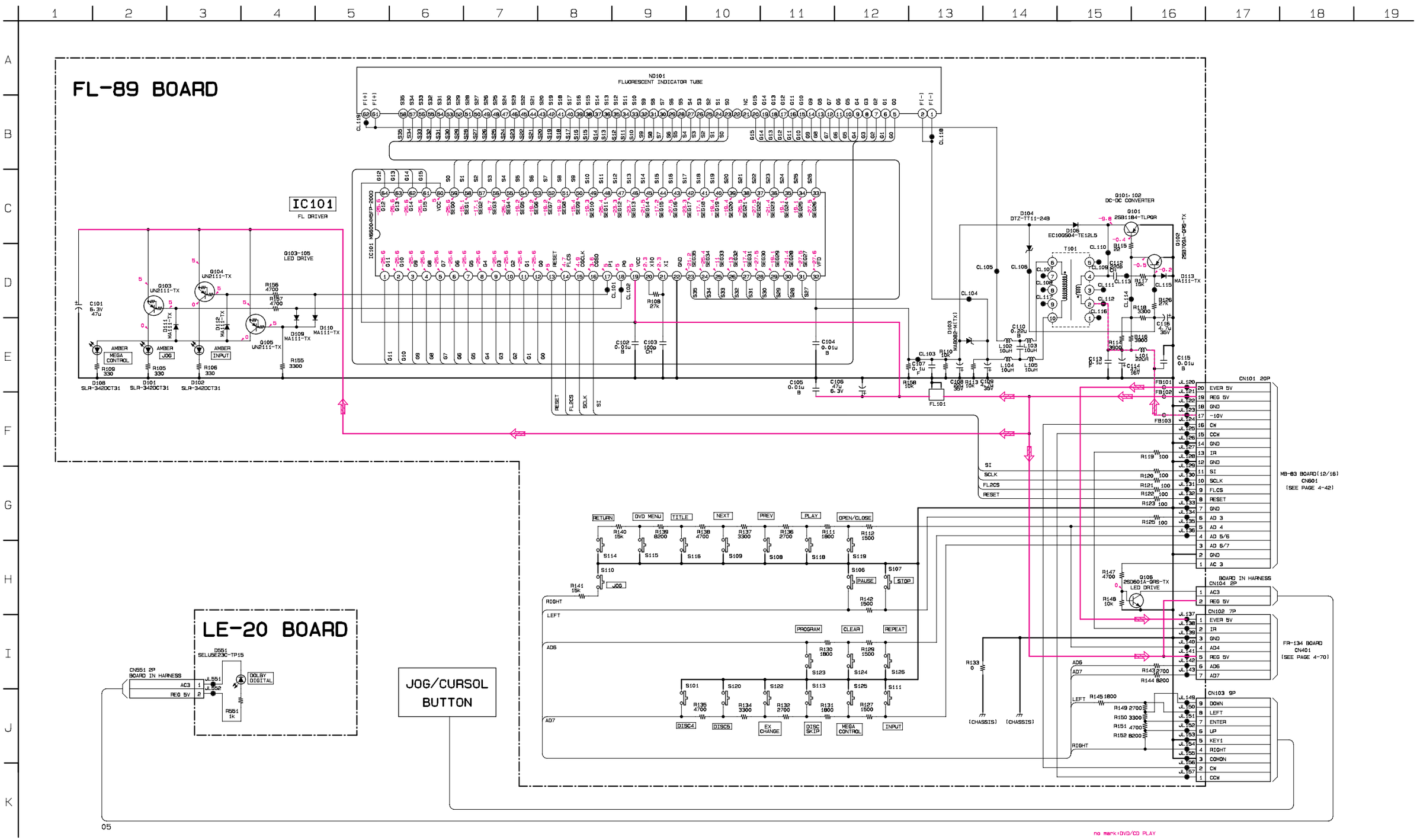
1.0 Vp-p (H)



**VIDEO BUFFER**
**AU-198 (4/4)**

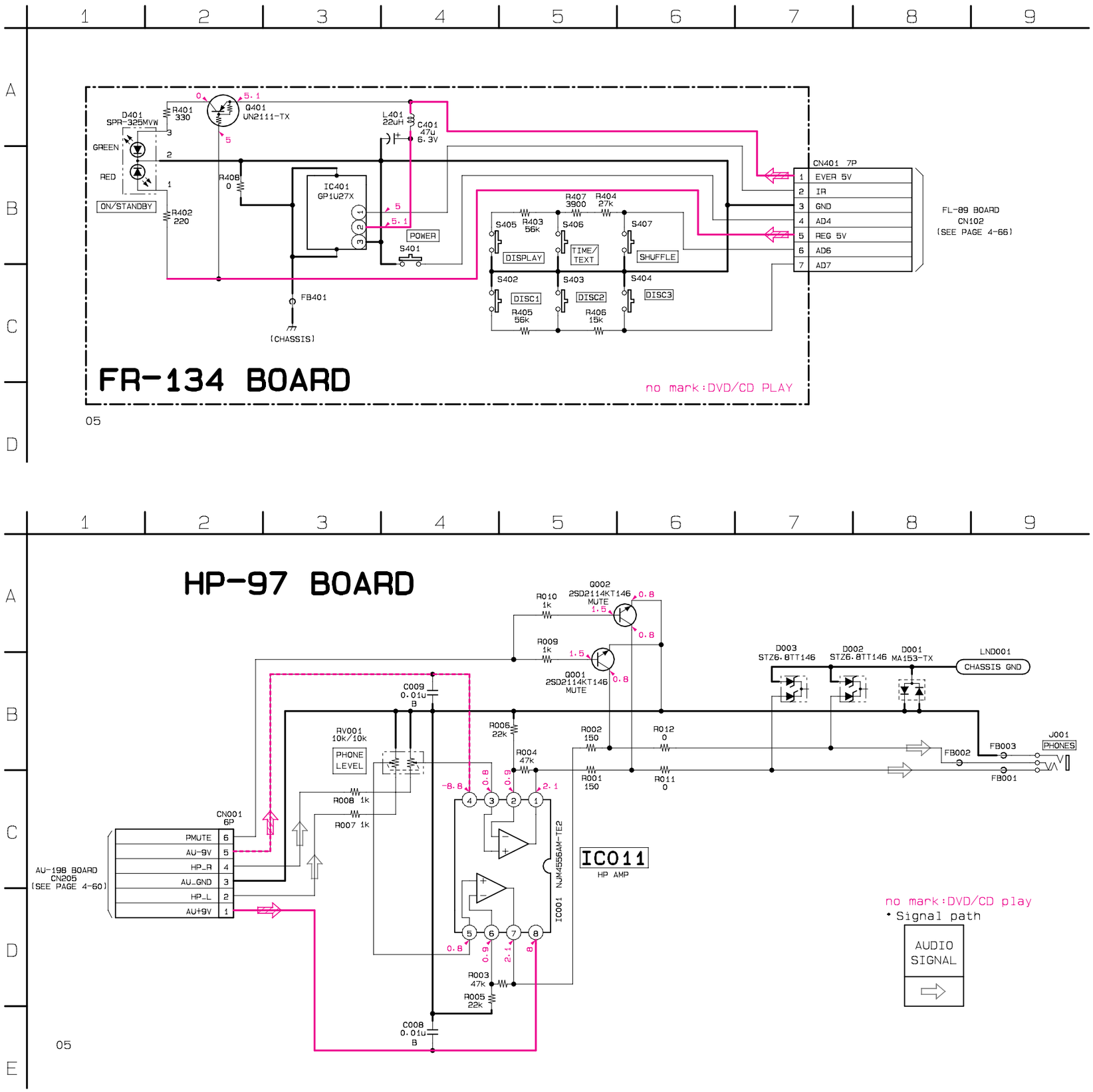
## FL-89 (FL DRIVER, FUNCTION SWITCH), LE-20 (LED) SCHEMATIC DIAGRAMS

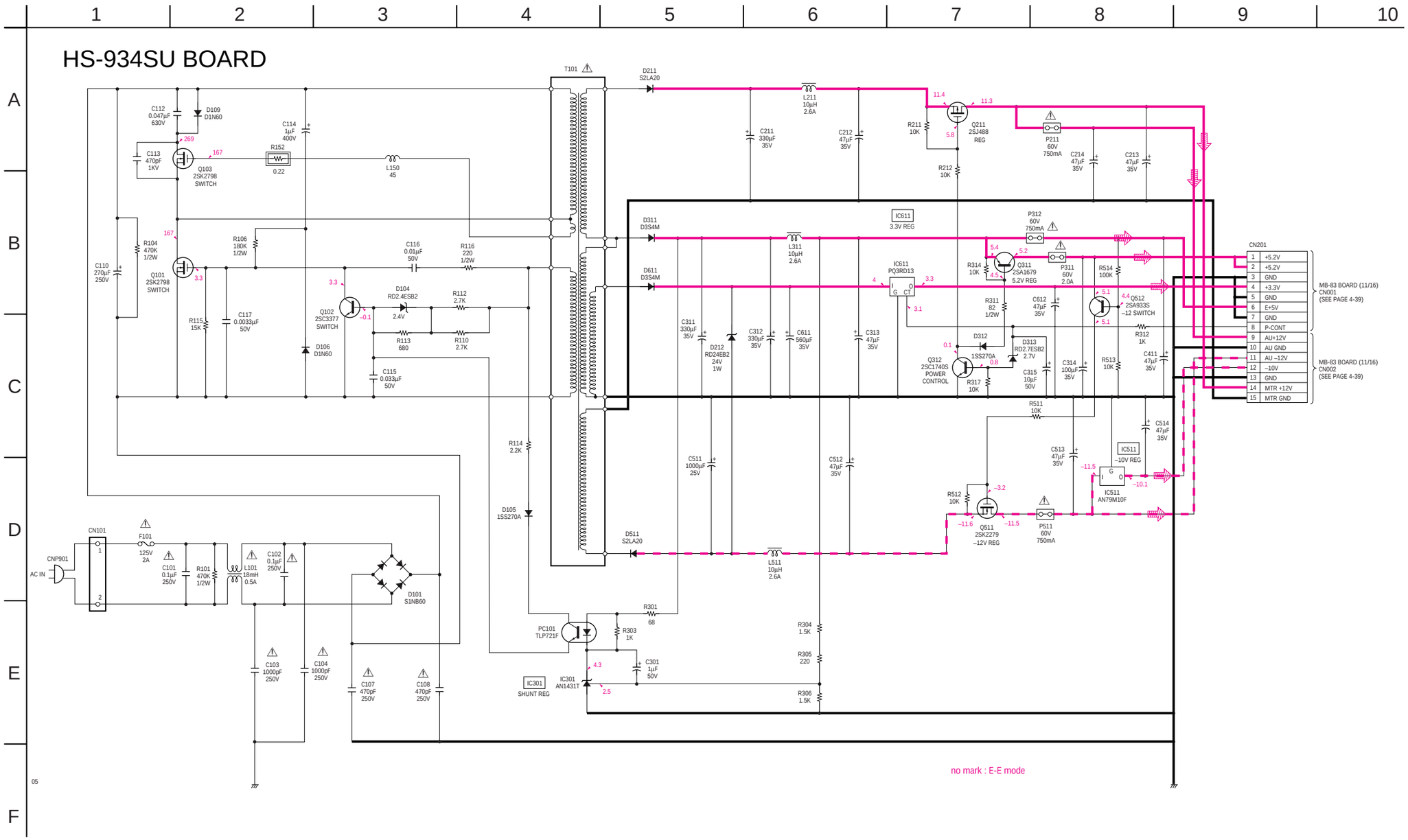
– Ref. No.: FL-89, LE-20 board; 1,000 series –



## FR-134 (FUNCTION SWITCH), HP-97 (HEAD PHONE) SCHEMATIC DIAGRAMS

– Ref. No.: FR-134, HP-97 boards; 1,000 series –



## HS-934SU (POWER SUPPLY) SCHEMATIC DIAGRAM

– Ref. No.: HS-934SU board; 4,000 series –